



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,664	02/10/2004	Shrinivas Ashwin	MSFT-3030 / 307230.01	3391

23377 7590 01/16/2007
WOODCOCK WASHBURN LLP
CIRA CENTRE, 12TH FLOOR
2929 ARCH STREET
PHILADELPHIA, PA 19104-2891

EXAMINER

ROSE, HELENE ROBERTA

ART UNIT	PAPER NUMBER
----------	--------------

2163

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/776,664	Applicant(s) ASHWIN ET AL.	
	Examiner Helene Rose	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/27/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/10/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This is a response to the amendment filed on 10/27/2006 in which claims 1-30 are pending.
2. Claims 1,5-6,11,15-16,21, and 25-26 have been amended. No claims have been added nor cancelled
3. Applicant's arguments filed on 10/27/2006 have been fully considered have been fully considered (MPEP 714.04; 37 CFR 1.111) but they are not persuasive.

Claim Rejections – 35 U.S.C – 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 5, 15 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. In view of the rejection made to Claims 5, 15 and 25 reciting "(or their equivalents)", in which the limitation rendered the entire claims vague and/or indefinite.

Examiner withdraws the pending objection based on applicant's amendment to claims.

7. In view of Claims 5, 15 and 25, reciting the following limitation "ntext", which rendered the claims vague/and or indefinite because it was unclear what is meant by the following limitation.

Examiner withdraws the pending objection based on verification (Transact-SQL Reference - web).

8. In view of rejection made to Claims 6,16 and 26 reciting "(or an equivalent data type)", in which the limitation rendered the entire claims vague and/or indefinite.

Examiner withdraws the pending objection based on applicant's amendment to claims.

9. In view of the rejection made to Claims 6,16 and 26 being rejected under 112, second paragraph for reciting the following limitation "or", which rendered the claims vague and indefinite, because the term "or" is considered to be alternative language.

Examiner withdraws the pending rejection based on applicant amendment to claims.

Claim Rejections – 35 U.S.C 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4, 7-10, 11-13, 14, 17-20-23, 24, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruso et al. (US Patent No. 6,615,219, Filing Date of Patent: December 29, 1999).

Claims 1, 11 and 21:

Regarding Claims 1, 11 and 21 discloses a method, computer-readable medium, and a system utilizing the same functionality, wherein Bruso teaches a method, computer-readable medium and a system for handling a large data object in a computer system (column 1, lines 56-67, wherein managing binary large objects in a database management system, Bruso), said method comprising creating a handling structure **comprising a reference to locate the large object and information to return an interface to provide access to** the large data object (column 1, lines 59-67, wherein one or more object identifier that reference and are associated with respective binary large objects, and wherein the object handler coupled to the database management a system, wherein the object handler configured and arranged to store each binary large object in a section of continuous storage referenced by the associated identifier, which is equivalent to "a reference to locate the large object", and wherein Figure 6, it illustrates a binary large objects, i.e., BLOB, selection in a database management system having a Web Interface; and column 7, lines 42-49, wherein in response to DBMS access the file containing the data referenced in request wherein the referenced data is a row in the database table, wherein the DBMS calls the BLOB handler to access the BLOB file using references found in the row of the database and so forth, which is interpreted and equivalent to "information to return an interface to provide access to the large data object, Bruso) wherein said handling structure can be processed by said computer system (Figure 6, all features, wherein a database management system having a web interface, Bruso), via

Art Unit: 2163

functions (column 6, lines 22-39, wherein the BLOB handler functions are described and so forth, Bruso), operations (column 6, lines 50-59, wherein the "following operations are required", Bruso), and so forth available for a small data object (column 3, lines 12-19, wherein may be a fixed length character string and balance may be a real number represented with a fixed number of bits, wherein BLOB's may be fixed or variable length data objects and so forth, wherein fixed length and a fixed number of bits is interpreted to be "small data object", Bruso), with which said large data object could not be so processed (column 6, lines 19-22, wherein due to the large size of the BLOB images, making a copy of the pages containing the BLOB before updating the BLOB pages take a prohibitively long time to accomplish, wherein due to the large size of BLOB images, and therefore updates takes a long time is interpreted to be wherein large data objects could not be processed, Bruso).

Claims 2, 12 and 22:

Regarding Claim 2, Bruso teaches a first handling structure pointing to a first large data object is virtually copied by the creation of a second handling structure that points to the same first large data object provided that the first handling structure (Figures 2 and 3, all features further defined in column 3, lines 5-45, Bruso) and the second handling structure do not write a change to said first large data object (Figure 7, diagram 414, wherein update page allocation information, yes or no, Bruso).

Claims 3, 13 and 23:

Regarding Claims 3, 13 and 23, Bruso teaches wherein, if said first handling structure must write a change to said first large data object (column 30, lines 3-10, wherein user can change the following options shown in option panel, and maximum size used is confronted with a very large dataset, Becker), said first large data object is copied to a second large data object (column 6, lines 15-19, Bruso) and said second handling structure is pointed to said second large data object prior to the first handling structure writing the change to the first large data object (column 6, lines 24-39, Bruso).

Claims 4, 14 and 24:

Regarding Claims 4, 14 and 24, Bruso teaches wherein, if said second handling structure must write a change to said first large data object (Figure 7, diagrams 416 and 418, Bruso), said first large data object is copied to a second large data object (Figure 8, diagram 458, Bruso) and said second handling

Art Unit: 2163

structure is pointed to said second large data object (Figure 3, all features, wherein further defined in columns 66-67 and lines 1-10, Bruso), and then said second handling structure will write the change to the second large data object (Figure 8, diagram 462, Bruso).

Claims 7, 17 and 27:

Regarding Claims 7, 17 and 27, Bruso teaches wherein said handling structure corresponds to a small value data object (Refer to claim 1, wherein this limitation is substantially the same/or similar, Bruso), and said small value data object is stored entirely within the said handling structure (column 1, lines 32-35, wherein smaller data items permitted multiple rows of data to be stored in one physical page of storage, thereby, enabling retrieval of multiple rows with a single input/output (I/O) operation; column 3, lines 10-12, wherein fixed length fields is defined, Bruso).

Claims 8, 18 and 28:

Regarding Claims 8, 18 and 28, Bruso teaches a delete operation for said handling structure (column 4, lines 41-48, Bruso), wherein if said handling structure is of a first type, said handling structure and a corresponding large data object are both deleted (column 5, lines 43-49, Bruso), and wherein if said handling structure is of a second type, only said handling structure, and not said corresponding large data object, is deleted (column 4, lines 41-48, Bruso).

Claims 9, 19 and 29:

Regarding Claims 9, 19 and 29, Bruso teaches wherein said handling structure has a lifetime (column 4, lines 29-35, Bruso), and said handling structure comprising a field having a value corresponding to said lifetime (column 4, lines 38-40, Bruso).

Claims 10, 20 and 30:

Regarding Claims 10, 20 and 30, Bruso teaches wherein said handling structure is created (column 4, lines 29-35, Bruso) by a handling structure factory in response to a need for a handling structure (column 1, lines 46-50, Bruso).

Claim Rejections – 35 U.S.C – 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5-16, 15-16, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruso et al. (US Patent No. 6,615,219, Filing Date of Patent: December 29, 1999) in view of Becker (US Patent No. 6,301,579, Date of Patent: October 9, 2001).

Claims 5, 15 and 25:

Regarding Claims 5, 15 and 25, Bruso discloses all the limitations above. However, Bruso does not disclose wherein wherein a data object having a type from among the group of types comprising text, **ntext**, and image data types is converted into a large data object with a corresponding handling structure,

On the other hand, Becker teaches wherein a data object having a type from among the group of types comprising text, **ntext**, and image data types is converted into a large data object with a corresponding handling structure (column 7, lines 44-45, wherein categorical attributes have nominal values like text strings, column 7, lines 13-17, wherein using on-line analytical processing, OLAP, a relational data set can be converted into a summarized hypercube data structure in order to perform fast queries, column 19, lines 63-64, wherein print an image of the current display, Becker).

It would have been obvious at the time of the invention was made for one person of the ordinary skill in the art to modify the disclosure of Becker to provide faster processors, additional bandwidth, and more storage for applications.

Claims 6, 16 and 26:

Regarding Claims 6, 16 and 26, the combination of Bruso in view of Becker teaches wherein a data object having a type from among the group of types comprising text, **ntext**, and image data type is converted into a data object (Refer to claim 5, wherein this limitation is substantially the same/or similar,

Becker) having a type from among the groups of types comprising varchar (MAX), nvarchar (MAX), or varbinary (MAX) respectively wherein varchar (MAX), nvarchar (MAX), and varbinary (MAX) (Figure 19, all features, Becker) comprise a handling structure (see abstract, wherein the object handler is interpreted to be the handling structure, Bruso) and the MAX corresponds to a predetermined maximum size value (column 30, lines 7-10, wherein the maximum size is used when a user is confronted with a very large dataset, wherein a default limit can be set and so forth, Becker).

It would have been obvious at the time of the invention was made for one person of the ordinary skill in the art to combine the combination of Bruso in view of Becker, for implementing a method that is able to handle and store large objects.

Response to Applicant's Remarks

Applicant argues prior art fails to teach, "a reference to locate a large data object and information to return an interface to provide access to the large data object", as cited on pages 8-9, of applicant's remarks.

Applicant argues an amended claim language, which was not presently defined within the original office action, therefore in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a reference to locate a large data object and information to return an interface to provide access to the large data object) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Prior Art Made of Record

1. Becker (US Patent No. 6,301,579) discloses a data structure visualizes a data structure such as a decision table classifier; wherein a data file is based on a data set of relational data is stored as a relational table, where each row represents an aggregate of all the records for each combination of values of the attributes used.

2. Bruso et al. (US Patent No. 6,615,219) discloses a system and method for managing binary large object in a database.
3. Trappen et al. (US Patent No. 7,010,542) discloses a select list for the query is thus constructed such that it produces a result set having a predefined structure, wherein columns representing identifier properties of an entity are added to the select list.
4. Srivastava (US Patent No. 6,735,598) discloses techniques used in a relational database system for defining subclasses of built in classes and thereby achieving columns in database tables, which contain polymorphic objects of the built in classes.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helene Rose
Technology Center 2100
December 30, 2006


WILSON LEE
PRIMARY EXAMINER